

CLAIMS

Claim 1 (canceled).

2. (currently amended) The ultra-wideband communication system of claim 9 [[1]], wherein the ultra-wideband signal comprises an impulse radio signal.

3. (currently amended) The ultra-wideband communication system of claim 9 [[1]], wherein the ultra-wideband signal comprises a pulse of electromagnetic energy having a duration that can range between about 0.1 nanoseconds to about 100 nanoseconds.

4. (currently amended) The ultra-wideband communication system of claim 9 [[1]], wherein the ultra-wideband signal comprises a pulse of electromagnetic energy having a duration that can range between about 0.1 nanoseconds to about 100 nanoseconds and a power that can range between about 30 power decibels to about -90 power decibels, as measured at a single frequency.

5. (currently amended) The ultra-wideband communication system of claim 9, ~~1, wherein~~ the further comprising an ultra-wideband transmitter that comprises an ultra-wideband pulse modulator that is structured to transmit a multiplicity of ultra-wideband signals.

6. (currently amended) The ultra-wideband communication system of claim 9, ~~1~~, wherein the further comprising an ultra-wideband receiver that comprises an ultra-wideband pulse demodulator that is structured to receive a multiplicity of ultra-wideband signals.

7. (currently amended) The ultra-wideband communication system of claim 9 ~~[[1]]~~, wherein a wire employed in the ~~wired~~ community access television network is selected from a group consisting of: an optical fiber ribbon, a fiber optic cable, a single mode fiber optic cable, a multi-mode fiber optic cable, a twisted pair wire, an unshielded twisted pair wire, a plenum wire, a PVC wire, a coaxial cable, and an electrically conductive material.

Claim 8 (canceled).

9. (original) A method of transmitting data through a community access television network, the method comprising the steps of:

providing the community access television network; and
transmitting an ultra-wideband signal through the community access television network.

10. (original) The method of claim 9, wherein the community access television network is selected from the group consisting of: an optical network, a cable television network, a community antenna television network, and a hybrid fiber coax television network.

11. (original) The method of claim 9, wherein the ultra-wideband signal comprises an impulse radio signal.

12. (original) The method of claim 9, wherein the ultra-wideband signal comprises a pulse of electromagnetic energy having a duration that can range between about 0.1 nanoseconds to about 100 nanoseconds.

13. (original) The method of claim 9, wherein the ultra-wideband signal comprises a pulse of electromagnetic energy having a duration that can range between about 0.1 nanoseconds to about 100 nanoseconds and a power that can range between about 30 power decibels to about -90 power decibels, as measured at a single frequency.

14. (original) The method of claim 9, wherein the ultra-wideband signal is used to transmit data selected from a group consisting of: telephony data, high-speed data, digital video data, digital television data, Internet communication data and audio data.

15. (original) The method of claim 9, wherein the ultra-wideband signal is transmitted substantially simultaneously with a community access television signal.

16. (original) The method of claim 9, wherein the community access television signal is used to transmit data selected from the group consisting of: telephony data, high-speed data, digital video data, digital television data, Internet communication data and audio data.

17. (original) The method of claim 9, wherein the ultra-wideband signal and a community access television network signal use a substantially common portion of an electromagnetic radiation spectrum.

18. (original) The method of claim 9, wherein the ultra-wideband signal and a community access television network signal are transmitted in a frequency band that can range from between about 100 KHz to about 3 GHz.

19. (original) The method of claim 9, wherein the ultra-wideband signal and a community access television network signal use separate portions of an electromagnetic radiation spectrum.

20. (original) The method of claim 9, wherein the ultra-wideband signal is transmitted in a frequency band that can range from between about 880 MHz to about 3 GHz and a community access television network signal is transmitted in a frequency band that can range from between about 100 KHz to about 3 GHz.

21. (original) The method of claim 9, wherein the ultra-wideband signal is transmitted in a frequency band that can range from between about 1 GHz to about 3 GHz and a community access television network signal is transmitted in a frequency band that can range from between about 1 MHz to about 900 MHz.

Claims 22-29 (canceled).